UTILITY ADVISORY BOARD
Thursday, August 17, 2017
1900 Oak Industrial Drive
8:00 a.m.
AGENDA

1. Approval of Minutes – July 20, 2017 - attached
2. Public Comment on Agenda Items
3. Review of Connection Fee Rate Methodology Draft Memo -attached - Molly Eastman
4. American Water Works Association article – attached -Dave Harran
5. Request for Review of Water Utility Service District Boundary Change Request - attached
6. Updates
    a. Monthly Contract Awards –July - attached
    b. 5 year Extension of Water/Sewer Agreements
7. Public Comment
8. Items from Members
9. Next Meeting –September 21, 2017- 8:00 a.m. -Water Office
10. Adjournment

Utility Advisory Board
Minutes
July 20, 2017

Call to Order:

The meeting was called to order by Eric DeLong, at 8:11 a.m. at Grand Rapids Water Office, 1900 Oak Industrial Drive NE.

Present:

Breese Stam, Toby Van Ess, Chuck Schroeder, Tim Bradshaw, Jenessa Carter, Molly Eastman, LaToya Black, Darrel Schmalzel, Tom Almonte, Doug LaFave, Ed Robinette, Mike Lunn, Nicole Pasch, Bill Kaiser, Wayne Jernberg, Alicia Bernt, Mike Grenier, Jesse Bradley

Public Comment

None

Approval of Minutes

A motion was made and supported to approve the minutes of the Utility Advisory Board

MOTION CARRIED.

Public Comment

None.

Mike Lunn introduced Jesse Bradley from the Environmental Services Department.

ICB Assistance Program 2nd Quarter CY2017 Report

LaToya Black explained that the awards last quarter totaled $33,000. They have used $85,000, with $66,494 remaining. From looking at last year, it is tracking ahead. . Household served is up as well. The program is working out well. Regarding the jurisdiction summary, most of that was from Grand Rapids households. She would start work on the contract as it is expiring this year. Eric DeLong noted that there is a merger going on. The contract will have to be amended to reflect a new entity.

Report of the Utility Advisory Board

Eric DeLong stated that this report was introduced last month. Everyone had a chance to read it and to ask questions. He would like board members to review the report and approve it. Molly Eastman noted that Attachment C should be updated to the most recent document. IF approved, the new rate would go into effect January 1, 2018. The rate study is money collected through June 30th of the fiscal year. The impact will be seen in the following year's rates. When we start on the 2018 rate study, because of the reduced rate, you will see a phased-in rate impact. The first year rate impact for water is 4.8 increase, for sewer .75, because of the half year of reduced rate. The next year you see the final effect of that rate impact. It would be a difference of 1.34 water /1.24 sewer. Eric noted that the rates vary according to community. Molly referred to the system average, attachment E, where it was broken down by customer community. This outside where the circuit breaker comes into effect for the community to help normalize that, holding the circuit breaker constant and changes in the asset base constant, this is the total impact over the two years.

Eric DeLong noted that they had previously discussed the differential rate. Molly stated that this has to do with the way the integrated system is distributed, as well as how the revenue comes back as a credential revenue requirement. That was one of the things that caused the impact. Doug LaFave asked if the increase in rates is related to decrease in integrated connection fees. We don't have a lot of those. Molly stated that this is the impact. This analysis does not include additional customers in the system. It does not take into account that kind of recovery. If you see an increase in connections as a result of this, you will get the benefit from that. Eric stated that the outcome is increased connections, as opposed to reduced fees that has a financial impact. If we can increase the sewer connections, then there will be fewer septic tanks. Doug LaFave stated that the community that already has everything connected is going to pay more than communities trying to bring them on. Molly stated that they had discussed how many people would come on to the system. The connection revenue may be down this year. We might already be experiencing that impact. Eric DeLong stated that we have not seen what happens when billed flow goes up. Molly stated that she would model that.

Toby Van Ess noted that Tallmadge is the opposite. People are not coming on because of escalated rates. If you are going to raise your rates, you will see less. The connection fees are not the problem, it is rates. Tallmadge rates are the number one reason for phone calls. Eric DeLong referred to page 11, talking about potentials. He asked if that could be modeled. Tim stated that we want to see how it benefits paying a higher percentage. Our increase which is more than their increase. Eric asked in Toby's case if it would be possible that the circuit breaker would mitigate his increase to some extent. Molly replied that all of the funding was used for sewer and everything but $10,000 for water. How much you receive depends on how much everyone else's rates are swinging. If you have a smaller customer community, it will be a more dramatic impact.

Breese Stam asked it was possible to analyze the previous benefit over ten or twenty years on a percentage basis. It would be credits provided to different communities over ten or twenty years. It might help in explaining that to the commission. Molly Eastman noted that currently the revenue requirement is billed out based on how we distribute the integrated cost of the system. We did discuss in the subcommittee changing the methodology.

Wayne Jernberg added that with the PRC being a revised integrated connection charge is dependent on the retail communities and the plans submitted to the development center for that review. Whether it is commercial, industrial, fire protection, irrigation, etc., those reviews contribute to the PRC. Residential connections are also included. Making sure we get all those other reviews in. That contributes as well to the pool of money that is integrated. It is their retail communities that are contributing to this that East Grand Rapids still retains a benefit from as an integrated charge.

Darrell Schmalzel expressed appreciation for all of the work the community has put into this. You want the connections, but you don't want the rates to go up. The committee did a good job and the report is well done. It will help assuming we have to amend the contract with commission to reflect this. This is a good base. In Walker, there are a lot of neighborhoods with water and sewer. We try to encourage people to hook up. The more users we have, the better for everyone.

Eric DeLong noted that if the recommendation was not approved today, it would need to be approved at the next meeting. The contract amendments will have to be approved by the governing bodies in December because the rates go into effect in January. The rates have to be adopted December 12th.

Motion by Ed Robinette, supported by Darrel Schmalzel, to approve the proposed change to the connection fees and adopt the recommendation of the rate review subcommittee.

MOTION CARRIED.

This will be brought back on August 17th. Molly will start working on the memo and it will be ready in draft form with the FAQ and the step sheet.

Monthly Contract Awards

There are currently no monthly contract awards.

Storm Update

Eric DeLong discussed the storm event two weeks ago. He would like to thank and all staff and the crews at Water and ESD for all of the hard work. It was a team effort. Eric summarized the events of the storm. Everyone did very well and worked together. Staff learned a lot from the storm event. A lot of potential studies and projects will come out of it. There were many calls during the storm from residents. There is now a procedure in place through 311 for this type of situation.

Wayne Jernberg gave an update on residential cross connection program. The final notices have gone out in the past week. This is the area north of Tallmadge, Grand Rapids Township and Walker. 3,500 notices have gone out. The second notices went out in mid-June. We are at 500 out of the 3500 that are still non-compliant. This is ahead of pace for other years, and well ahead of pace for this area. Early August is when we will do another report. We will make phone contact or personal contact and the resident will receive a door hanger if they are non-compliant for the residential irrigation system. The first or second week of August there will be a report that is generated for the communities for the properties that are still non-compliant.

Mike Lunn noted that the Utility Aid position was posted. It is a low level positon. 50% of staff is retiring in the next ten years. They had interviews for the digestion projects for construction managers on Monday. Mike stated that Eric was fantastic talking to the DEQ about the permit. He helped negotiate the CSO wet weather section permit. We are expecting a new draft permit. Yesterday he had given a tour to reporters from Rapid Growth Media. They are doing an energy piece on Grand Rapids.

Next Meeting

The next Utility Advisory Committee meeting will be August 17th at 8:00 a.m.

Adjournment

The Utility Advisory Committee was adjourned on 9:09 a.m.

MEMORANDUM
CITY OF GRAND RAPIDS

DATE: August, 2017

TO: City Commission Members

FROM: Molly J. Eastman
Utility Financial Officer

SUBJECT: Integrated Connection Fees Rate Methodology Change

In July 2017, the Utility Advisory Board ("UAB") voted to recommend adoption of a new methodology for connection to the water and sewer systems. This change was made after the UAB assigned the Rate Review Sub-Committee to review the rate methodology to determine if it continued to meet the goals and objectives discussed when the partnership was founded. The Sub-committee determined that those objectives remained critical and were being met, but that there was interest in increasing connection to the system. The Sub-Committee determined that the cost of connection was a deterrent to establishing new water and sanitary sewer connections after review that the cost of connection to the water and sewer system, which evaluated each cost involved, including front footage and integrated connection fees. They recommended an adjustment in integrated connection fees, as the most feasible method of reducing the cost of connection and encouraging system growth within the active utility service district (USD) of the partnership communities.

The original integrated connection fee was intended to recover the cost for expansion of the Water and Wastewater treatment facilities. That debt is now largely retired which provided the opportunity to review the cost of connection and led to the recommendation that an adjustment be made.

It is recommended that commencing with the 2017 rate study, integrated connection fees be based on a full cost recovery method for the City of Grand Rapids' involvement in water and sewer connection processing. The calculation includes a plan review and connection component ("PRC"), which will recover the costs associated with the account set-up and plan review. Also included is a meter capacity component ("MCC") that will be based on the meter acquisition cost. The PRC fee is based on the actual cost per hour for plan review, hydraulic engineering, utility engineering and water management based on the hours required for review by meter size. The MCC fee is based on the cost of meters (also noted in task #30 of the Water and Sewer Rate Study).

Integrated connection fee revenue is used as a credit against the revenue requirement in the Water and Sewer annual rate study all partner communities share proportionately in this credit.

Since the rate study is based on revenues and expenses of the previous fiscal year ending on June 30th, with the new connection fee rate effective on January 1, 2018, the impact of the recommended change on rate payers will take place over the course of two years. Ottawa County and Gaines Township are not involved as they operate under the old model contract and do not currently benefit from connection fee revenue as an offset to revenue requirement.

The estimated impact on partner communities of the Water and Sewer System is as follows:

Customer Community	2018 Rate Study (Rates Effective January 1, 2019)		2019 Rate Study (Rates Effective January 1, 2020)	
	Water	Sewer	Water	Sewer
Retail:				
City of Grand Rapids	0.74%	0.65%	0.50%	0.43%
City of Walker	1.09%	0.77%	0.72%	0.51%
City of Kentwood	0.93%	1.26%	0.61%	0.83%
Cascade Township	0.81%	0.99%	0.54%	0.66%
Grand Rapids Township	0.84%	0.67%	0.56%	0.45%
Tallmadge Township	1.12%	0.57%	0.75%	0.38%
Wright Township	N/A	0.48%	N/A	0.33%
Wholesale:				
City of East Grand Rapids	1.59%	2.01%	1.06%	1.34%
Ada Township	1.38%	1.17%	0.91%	0.78%
Ottawa County	N/A	N/A	N/A	N/A
Caledonia Township	N/A	2.16%	N/A	1.44%
Gaines Township	N/A	N/A	N/A	N/A

Attached is the Integrated Water Connection Fee Schedule effective January 1, 2018. These costs will be assessed annually as part of the rate review process.

Plan Review and Connection Component (PRC):

Meter Size	Base Conn. Fee	Plan reviewer time (hrs)	Plan Rewr. Rate	Plan Rewr. Cost	Hyd Eng. Time (hrs)	Hyd Eng. Rate	Hyd Eng. Cost	Utility Eng. Time (hrs)	Utility Eng. Rate	Utility Eng. Cost	Water Mgmt. Time (hrs)	Water Mgmt. Rate	Water Mgmt. Cost	Total	PRC FEE
3/4"	$ 350.00	2	$53.54	$ 107.08	1	$ 72.49	$ 72.49	1	$53.54	$ 53.54	1	$86.60	$ 86.60	$ 669.71	**$ 670.00**
1"	$ 350.00	3	$53.54	$ 160.62	2	$ 72.49	$144.98	2	$53.54	$107.08	1	$86.60	$ 86.60	$ 849.28	**$ 850.00**
1 1/2"	$ 350.00	4	$53.54	$ 214.16	3	$ 72.49	$217.47	3	$53.54	$160.62	2	$86.60	$173.20	$1,115.45	**$1,120.00**
2"	$ 350.00	6	$53.54	$ 321.24	5	$ 72.49	$362.45	5	$53.54	$267.70	3	$86.60	$259.80	$1,561.19	**$1,570.00**
3"	$ 350.00	10	$53.54	$ 535.40	6	$ 72.49	$434.94	6	$53.54	$321.24	3	$86.60	$259.80	$1,901.38	**$1,910.00**
4"	$ 350.00	16	$53.54	$ 856.64	8	$ 72.49	$579.92	8	$53.54	$428.32	5	$86.60	$433.00	$2,647.88	**$2,650.00**
6"+	$ 350.00	24	$53.54	$1,284.96	12	$ 72.49	$869.88	12	$53.54	$642.48	8	$86.60	$692.80	$3,840.12	**$3,850.00**

Fire Protection

FP Size	Base Conn. Fee	Plan reviewer time (hrs)	Plan Rewr. Rate	Plan Rewr. Cost	Hyd Eng. Time (hrs)	Hyd Eng. Rate	Hyd Eng. Cost	Utility Eng. Time (hrs)	Utility Eng. Rate	Utility Eng. Cost	Water Mgmt. Time (hrs)	Water Mgmt. Rate	Water Mgmt. Cost	Total	PRC FEE
All Sizes	$ 350.00	2	$53.54	$ 107.08	1	$ 72.49	$ 72.49	2	$53.54	$107.08	0.5	$86.60	$ 43.30	$ 679.95	**$ 680.00**

Meter Capitcity Component (MCC):

Meter Size	2017 Cost
3/4" or smaller	$ 175.00
1"	$ 250.00
1 1/2"	$ 800.00
2"	$ 900.00
3"	$1,100.00
4" or larger	at cost

CITY OF GRAND RAPIDS, MICHIGAN
NEW CONNECTION FEE METHODOLOGY - AGGREGATE IMPACT ON SEWER RATES

Community		Revenue Requirement: Commodity	Revenue Requirement: Total	Revenue Requirement: Percentage	Residential Rates: Comm per HCF	Residential Rates: RTS per HCF	A-Meter Customers	Other Customers	Total Customers	Equivalent Customers	Billed Units (HCF)
Retail Customers:											
Grand Rapids	2016 Final Rate Study	$21,727,804	$34,749,408	62.527%	$3.35	$1.87	54,319	3,997	58,316	71,955	482.93 6,491,565
	2016 Rate Study - Reduced Connection Fee	$21,727,804	$35,117,957	61.871%	$3.35	$1.92	54,319	3,997	58,316	71,955	6,491,565
	Effect of Reduced Connection Fees	$0	$368,549		$0.00	$0.05					
	New Customers/Billed Units Needed to Maintain Current Rates									1,528	110,015
Walker	2016 Final Rate Study	$2,016,961	$4,395,876	45.883%	$2.43	$3.25	5,063	593	5,656	7,511	830,025
	2016 Rate Study - Reduced Connection Fee	$2,050,162	$4,457,782	45.991%	$2.47	$3.29	5,063	593	5,656	7,511	830,025
	Effect of Reduced Connection Fees	$33,201	$61,906		$0.04	$0.04					
	New Customers/Billed Units Needed to Maintain Current Rates									190	13,663
Kentwood	2016 Final Rate Study	$3,293,107	$3,839,591	85.767%	$2.40	$0.82	3,600	1,023	4,623	8,141	1,372,128
	2016 Rate Study - Reduced Connection Fee	$3,361,714	$3,922,011	85.714%	$2.45	$0.84	3,600	1,023	4,623	8,141	1,372,128
	Effect of Reduced Connection Fees	$68,607	$82,420		$0.05	$0.02					
	New Customers/Billed Units Needed to Maintain Current Rates									477	34,342
Cascade Twp	2016 Final Rate Study	$1,140,002	$2,323,983	49.054%	$2.63	$2.55	1,451	473	1,924	3,218	433,461
	2016 Rate Study - Reduced Connection Fee	$1,161,675	$3,262,213	35.610%	$2.68	$2.58	1,451	473	1,924	3,218	433,461
	Effect of Reduced Connection Fees	$21,673	$938,230		$0.05	$0.03					
	New Customers/Billed Units Needed to Maintain Current Rates									4,955	356,741
Grand Rapids Twp	2016 Final Rate Study	$856,284	$2,329,585	36.757%	$2.23	$3.13	3,384	361	3,745	4,827	383,984
	2016 Rate Study - Reduced Connection Fee	$867,804	$2,356,801	36.821%	$2.26	$3.16	3,384	361	3,745	4,827	383,984
	Effect of Reduced Connection Fees	$11,520	$27,216		$0.03	$0.03					
	New Customers/Billed Units Needed to Maintain Current Rates									170	12,204

Community		Revenue Requirement			Residential Rates		A-Meter	Other	Total	Equivalent	Billed
		Commodity	Total	Percentage	Comm per HCF	RTS per HCF	Customers	Customers	Customers	Customers	Units (HCF)
Tallmadge Twp	2016 Final Rate Study	**$230,507**	**$383,400**	**60.122%**	**$10.79**	**$4.07**	**163**	**27**	**190**	**193**	**21,363**
	2016 Rate Study - Reduced Connection Fee	$232,643	$387,000	60.114%	$10.89	$4.11	163	27	190	193	21,363
	Effect of Reduced Connection Fees	**$2,136**	**$3,600**		**$0.10**	**$0.04**					
	New Customers/Billed Units Needed to Maintain Current Rates									**5**	**334**
Wright Township	2016 Final Rate Study	**$264,113**	**$264,113**	**100.000%**	**$52.09**	**$0.00**	**231**	**-**	**231**	**423**	**21,632**
	2016 Rate Study - Reduced Connection Fee	$264,297	$264,297	100.000%	$52.13	$0.00	231	-	231	423	21,632
	Effect of Reduced Connection Fees	**$184**	**$184**		**$0.04**	**$0.00**					
	New Customers/Billed Units Needed to Maintain Current Rates									**0.05**	**4**

Wholesale Customers:

		Revenue Requirement				Estimated Res.	Billed
		Commodity	Total	Percentage	Comm per HCF	Customers	Units (MG)
East Grand Rapids	2016 Final Rate Study	$550,313	$572,131	96.187%	$1,684.00	6,068	326.789
	Reduced Connection Fee	$568,940	$590,703	96.316%	$1,741.00	6,068	326.789
	Effect of Reduced Connection Fees	**$18,627**	**$18,572**		**$57**		
	New Customers/Billed Units Needed to Maintain Current Rates					**205**	**11.061**
Caledonia Township	2016 Final Rate Study	$103,820	$112,874	91.979%	$4,040	477	25.698
	Reduced Connection Fee	$107,315	$116,377	92.213%	$4,176	477	25.698
	Effect of Reduced Connection Fees	**$3,495**	**$3,503**		**$136**		
	New Customers/Billed Units Needed to Maintain Current Rates					**16**	**0.865**
Ada Township	2016 Final Rate Study	$682,797	$1,234,065	55.329%	$2,023	6,267	337.517
	Reduced Connection Fee	$706,086	$1,257,111	56.167%	$2,092	6,267	337.517
	Effect of Reduced Connection Fees	**$23,289**	**$23,046**		**$69**		
	New Customers/Billed Units Needed to Maintain Current Rates					**214**	**11.512**
Gaines Township	2016 Final Rate Study	$175,875	$195,318	90.045%	$1,482	2,204	118.674
	Reduced Connection Fee	$175,875	$195,318	90.045%	$1,482	2,204	118.674
	Effect of Reduced Connection Fees	**$0**	**$0**		**$0**		
	New Customers/Billed Units Needed to Maintain Current Rates					**-**	**-**

Community	Revenue Requirement: Commodity	Revenue Requirement: Total	Revenue Requirement: Percentage	Residential Rates: Comm per HCF	Residential Rates: RTS per HCF	A-Meter Customers	Other Customers	Total Customers	Equivalent Customers	Billed Units (HCF)

Assumptions:

1. Average annual consumption per residential user: Sewer 72 units (53,856 gallons)
2. Since there is no meter and customer equivalent information for wholesale customers, estimated residential customers and billed units is derived from average usage in the system (see assumption #1).
3. "2016 Rate Study - Reduced Connection Fee" scenario assumes no increase in demand as a result of lowered connection fees
4. City of Grand Rapids sewer commodity rate is based on cost of integrated system and CSO debt. It is not calculated at a strict 64% of integrated cost like the City of Grand Rapids water commodity rate.
4. Wright Township is calculated using a monthly REU charge as opposed to a commodity charge.

CITY OF GRAND RAPIDS, MICHIGAN
NEW CONNECTION FEE METHODOLOGY - AGGREGATE IMPACT ON WATER RATES

Community		Revenue Requirement			Residential Rates		A-Meter	Other	Total	Equivalent Res.	Billed
		Commodity	Total	Percentage	Comm per HCF	RTS per HCF	Customers	Customers	Customers	Customers	Units (HCF)
Retail Customers:											
Grand Rapids	2016 Final Rate Study	$15,646,731	$24,448,017	64.000%	$1.92	$1.17	56,986	4,792	61,778	76,854	8,139,046
	2016 Rate Study - Reduced Connection Fee	$15,833,010	$24,739,078	64.000%	$1.95	$1.18	56,986	4,792	61,778	76,854	8,139,046
	Effect of Reduced Connection Fees	**$186,279**	**$291,061**		**$0.03**	**$0.01**					
	New Customers/Billed Units Needed to Maintain Current Rates									970	97,020
Walker	2016 Final Rate Study	$1,906,569	$3,218,400	59.240%	$1.64	$1.50	5,656	823	6,479	8,669	1,162,542
	2016 Rate Study - Reduced Connection Fee	$1,929,820	$3,260,759	59.183%	$1.66	$1.52	5,656	823	6,479	8,669	1,162,542
	Effect of Reduced Connection Fees	**$23,251**	**$42,359**		**$0.02**	**$0.02**					
	New Customers/Billed Units Needed to Maintain Current Rates									142	14,177
Kentwood	2016 Final Rate Study	$2,732,354	$4,325,744	63.165%	$1.61	$1.79	3,654	1,315	4,969	8,740	1,697,114
	2016 Rate Study - Reduced Connection Fee	$2,783,267	$4,390,179	63.398%	$1.64	$1.81	3,654	1,315	4,969	8,740	1,697,114
	Effect of Reduced Connection Fees	**$50,913**	**$64,435**		**$0.03**	**$0.02**					
	New Customers/Billed Units Needed to Maintain Current Rates									316	31,623
Cascade Twp	2016 Final Rate Study	$1,852,691	$3,250,824	56.991%	$2.25	$2.55	2,766	732	3,498	5,366	823,418
	2016 Rate Study - Reduced Connection Fee	$1,877,393	$3,293,351	57.006%	$2.28	$2.58	2,766	732	3,498	5,366	823,418
	Effect of Reduced Connection Fees	**$24,702**	**$42,527**		**$0.03**	**$0.03**					
	New Customers/Billed Units Needed to Maintain Current Rates									110	10,979
Grand Rapids Twp	2016 Final Rate Study	$1,140,416	$2,151,554	53.004%	$1.79	$1.84	3,830	498	4,328	5,598	637,104
	2016 Rate Study - Reduced Connection Fee	$1,153,158	$2,179,120	52.919%	$1.81	$1.86	3,830	498	4,328	5,598	637,104
	Effect of Reduced Connection Fees	**$12,742**	**$27,566**		**$0.02**	**$0.03**					
	New Customers/Billed Units Needed to Maintain Current Rates									71	7,118

8/16/2017

Community		Revenue Requirement			Residential Rates		A-Meter	Other	Total	Equivalent Res.	Billed
		Commodity	Total	Percentage	Comm per HCF	RTS per HCF	Customers	Customers	Customers	Customers	Units (HCF)
Tallmadge Twp	2016 Final Rate Study	$107,751	$169,809	63.454%	$3.58	$0.84	165	35	200	315	30,098
	2016 Rate Study - Reduced Connection Fee	$109,858	$172,942	63.523%	$3.65	$0.88	165	35	200	315	30,098
	Effect of Reduced Connection Fees	**$2,107**	**$3,133**		**$0.07**	**$0.03**					
	New Customers/Billed Units Needed to Maintain Current Rates									6	589

Wholesale Customers:

							Estimated Res. Customers	Billed Units (HCF)
East Grand Rapids	2016 Final Rate Study	$585,724	$769,220	76.145%	$0.99	$1,834.92	5,916	591,640
	2016 Rate Study - Reduced Connection Fee	$603,473	$790,437	76.347%	$1.02	$1,869.60	5,916	591,640
	Effect of Reduced Connection Fees	**$17,749**	**$21,217**		**$0.03**	**$34.68**		
	New Customers/Billed Units Needed to Maintain Current Rates						179	17,928
Ada Township	2016 Final Rate Study	$684,116	$1,216,916	56.217%	$1.12	$5,328.00	6,108	610,818
	2016 Rate Study - Reduced Connection Fee	$708,549	$1,241,848	57.056%	$1.16	$5,333.04	6,108	610,818
	Effect of Reduced Connection Fees	**$24,433**	**$24,932**		**$0.04**	**$5.04**		
	New Customers/Billed Units Needed to Maintain Current Rates						218	21,815
Ottawa County	2016 Final Rate Study	**$1,547,787**	**$1,546,733**	**100.068%**	**$1.12**		13,820	1,381,953
	2016 Rate Study - Reduced Connection Fee	$1,547,787	$1,546,733	100.068%	$1.12		13,820	1,381,953
	Effect of Reduced Connection Fees	**$0**	**$0**		**$0.00**			
	New Customers/Billed Units Needed to Maintain Current Rates						-	-

Assumptions:

1. Average annual consumption per residential user: Water 100 units (74,800 gallons)
2. Since there is no meter and customer equivalent information for wholesale customers, estimated residential customers and billed units is derived from average usage in the system (see assumption #1).
3. "2016 Rate Study - Reduced Connection Fee" scenario assumes no increase in demand as a result of lowered connection fees
4. Ottawa County does not receive integrated connecitcn fee revenue revenue as an offset to their revenue requirement per the Ottawa County Service Contract.

5/29/17 RAW
As revised following discussion with Sub-committee, May 2, 2017

Report of the Utility Advisory Board Rate Review Sub-Committee

1 INTRODUCTION

The region's first significant effort to put smart growth principles into play included a new water and sewer partnership developed in 1998 to manage growth and improve livability through an innovative approach to water and sewer service agreements. These agreements address sprawl in several key ways:

- by assigning a cost to the use of land,
- by requiring growth to pay for growth,
- by setting rational criteria for the expansion of utility service areas, and
- by using smart growth principles and good utility practice to ensure that utilities and growth patterns match up.

While the new agreements set a benchmark that is clearly a significant step forward, the Utility Advisory Board ("UAB") recognizes the need to continually review and improve on these tenets and to add more tools to the region's toolbox.

Previous subcommittees of the UAB have worked on various aspects of rates and charges. This work resulted in the partnership agreements being amended four times as follows:

- First amendment: calculation of integrated connection fees
- Second amendment: calculation of integrated connection fees and integrated system revenue requirement
- Third amendment: borderline street agreements; individual circuit breaker; City and customer community circuit breaker; and extending boundaries into adjoining municipalities when there are good engineering reasons to do so
- Fourth amendment: average billed flow; prepayment of capital reserve requirements; modification of the rate setting methodology; and modification of the rate of return percentage

In addition, several policies have been put in place to handle certain circumstances:

- Policy #06-01 Downward Adjustment of Area Calculation for the Determination of Water and Sewer Connection Fees for Residential Development (2/16/06; revised 5/18/06)
- Policy #08-01 Urban Mixed Use Development Connection Fees (2/21/08)
- Policy #08-02 Water Use Restriction Policy (2/21/08)
- Policy #10-01 Utility Service District (USD) Reduction Policy Standards (4/15/10)
- Policy #11-01 Prepay of Capital Reserve Requirements (10/20/11)

2 BACKGROUND

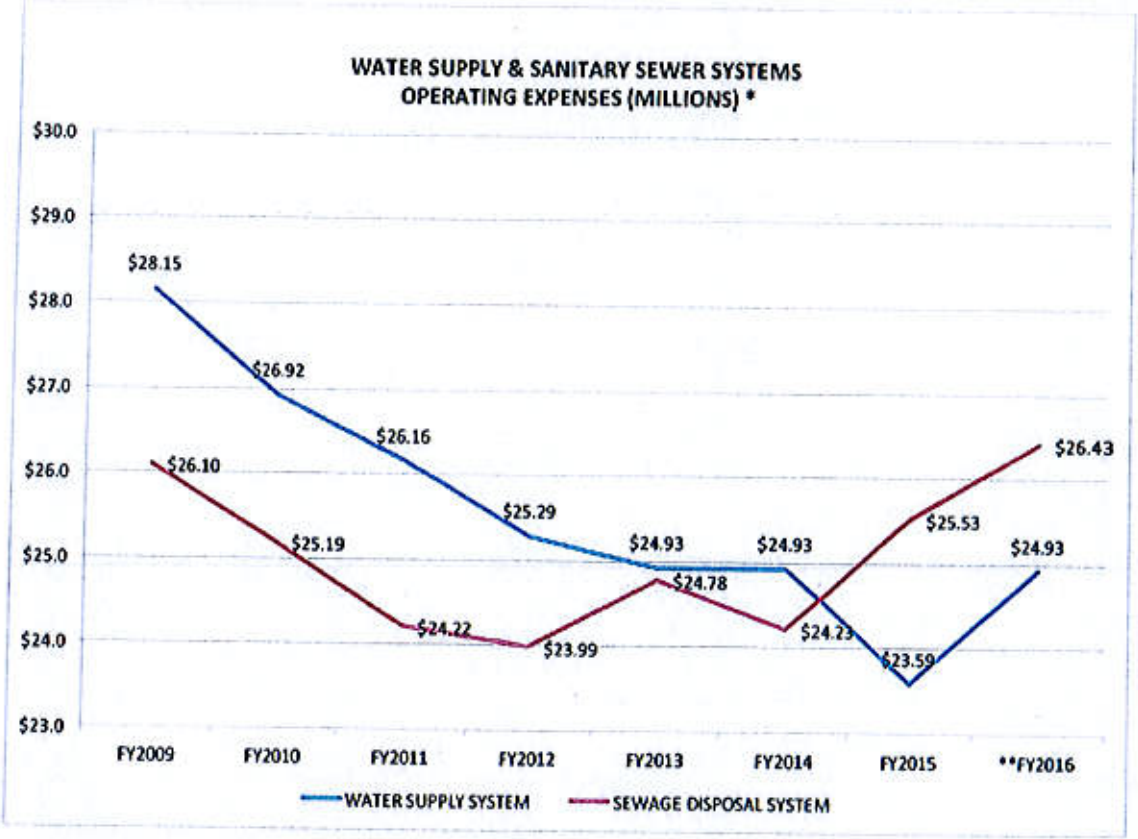
One of the hallmarks of the UAB partnership is its flexibility and ability of its partners to adapt together to both internal and external influences. Among the newest of the external influences are emerging concerns about connection fees, housing availability and affordability in the UAB service area and the publication of the "Report of the 21st Century Infrastructure Commission". Governor Snyder appointed the Commission and its recommendations include implementing a statewide asset management plan, promoting connections to public water and sewer systems and investing $4 billion per year in infrastructure asset management. Infrastructure classes include water, sewer, stormwater, transportation and communications systems.

In January 2014, the UAB formed a Rate Review Sub-Committee (the "Sub-Committee") consisting of representatives from Walker, Grand Rapids Charter Township, Kentwood, Cascade Charter Township, and Grand Rapids as well as legal counsel. The Sub-Committee was charged with reviewing and making recommendations as deemed appropriate on land use and metrics, the effectiveness of connection fees, the impacts of varying the readiness-to-serve charge and commodity charge by community, and strategies for increasing the number of users on the water and sanitary systems with a focus on infill development in some areas and larger, commercial users in others.

3 WORK OF THE SUB-COMMITTEE

The Sub-Committee began by reviewing the original concepts that were the foundation in the development of the Water and Sanitary Sewer Service Agreements with partner communities ("Agreements"). The Sub-Committee reviewed the adjustments that have been made to the Utility Service District ("USD") boundaries (see Attachment A) and determined that the Urban Utility Boundaries ("UUB") and the methods for expansion and reduction of the USD boundaries were working well. The group determined that no changes were needed to the overall, core components of the Agreements.

The UAB has been updated regularly on the many changes and improvements made in operations and maintenance costs over the past few years. Leadership in both water and sanitary sewer have demonstrated a strong commitment to control costs that have achieved an estimated $25 Million in operational savings since FY2009.



* Total operating expenses reported in Comprehensive Annual Report (CAFR) less depreciation plus transfer out; does not include interest expense on debt.
**Total operating expenses for FY2016 exclude loss on fixed assets

The results of this commitment are also shown in the above chart by the reduction in operating costs of both water and sanitary sewer between FY2009 and FY2016. Costs in sanitary sewer have fluctuated more due to the need to meet regulatory standards.

Operating costs in both water and sanitary sewer are expected to remain stable with no large, cost savings in the foreseeable future. That said, increased costs could be driven by external factors or significant capital investment.

Both internal and external factors influenced the 2016 Water/Sanitary Sewer Rate Study. The City Comptroller's Office made a determination on the treatment of fixed assets that caused certain elements of capital projects to be expensed in the current year rather than depreciated over time. This factor contributed to an increase in water and sanitary sewer rates in 2016 and has implications that bear watching.

Rating agency, S&P Global Ratings, made a determination that both systems bond coverage ratio should be 1.4 for all debt (both junior and senior). This more stringent test required additional revenue in 2016

and was a factor that contributed to an increase in water and sanitary sewer rates. A test has been added to the annual rate study to insure the new coverage ratio is maintained.

The Sub-Committee believes that attention will need to be placed on increasing usage in order to continue to moderate the ever-rising cost of service. In line with the core belief that urban sprawl is undesirable and should be restrained, it was agreed that the UUB should not be increased to achieve an increase in customers. The Sub-Committee also agreed that any recommendations for changes should not encourage the wasteful use of water in order to increase the amount of billed flow charged to water and/or sanitary sewer customers.

The Sub-Committee began a review of possible barriers to connection that customers may encounter. It found that system capacity is not a barrier and allows for the addition of new customers with available capacity of 15 MGD and 19 MGD in the water and sanitary sewer systems, respectively (see insert).

WATER SYSTEM CAPACITY

PSI Pressure: Ranges from 35-85 PSI, with the majority of the service area at 55-75 PSI

Total System Capacity: 135 MGD (million gallons per day)

Available Capacity: 15 MGD with additional 30 MGD of intake and treatment capacity without system modifications.

WASTEWATER SYSTEM CAPACITY

Average Daily Flow: 42 MGD (million gallons per day)

Total System Capacity: 61.1 MGD

Available Capacity: 19 MGD

BOD Capacity: 60,000 lbs. per day in BOD capacity immediately available.

Some Sub-Committee members believed that the cost of connection was a deterrent to water and sanitary sewer connections. In order to determine the gap between the cost of public water and sanitary sewer connections and the cost of connecting to private well and/or septic services, discussions took place with representatives from the Kent County Health Department (the "Health Department").

Health Department officials indicated that new businesses or residences are required to connect to public water and sanitary sewer systems if infrastructure is available within 200 feet of the closest point of the property line. Well and septic permits will not be issued if a facility is closer than 200 feet to the public system. It was also learned that the State of Michigan requires connection to the public sewer system if infrastructure is available.

Pertinent citations in the Michigan Public Health Code are as follows:

> 333.12752: Public sanitary sewer systems are essential to the health, safety, and welfare of the people of the state. Septic tank disposal systems are subject to failure due to soil conditions or other reasons. Failure or potential failure of septic tank disposal systems poses a threat to the public health, safety, and welfare; presents a potential for ill health, transmission of disease, mortality, and economic blight; and constitutes a threat to the quality of surface and subsurface waters of this state. **The connection to available public sanitary sewer systems** at the earliest, reasonable date is a matter for the protection of the public health, safety, and welfare and necessary in the public interest which is declared as a matter of legislative determination.

333.12751(c): **"Available public sanitary sewer system"** means a public sanitary sewer system located in a right of way, easement, highway, street or public way which crosses, adjoins or abuts upon the property and passing not more than 200 feet at the nearest point from a structure in which sanitary sewage originates.

333.12757(2): The department, after consultation with the state plumbing board, shall adopt guidelines to assist local health departments in determining what are acceptable alternative greywater systems and what are **acceptable innovative or alternative waste treatment systems.** The department shall advise local health departments regarding the appropriate installation and use of acceptable innovative or alternative waste treatment systems and acceptable innovative or alternative waste treatment systems in combination with acceptable alternative greywater systems.

333.12751(b): **"Acceptable innovative or alternative waste treatment system"** ...does not include a septic tank drain field system or any other system which is determined by the department to pose a similar threat to the public health, safety and welfare, and quality of surface and subsurface waters of this state.

Section P2602.1 and P2602.2 of the 2015 Michigan Plumbing Code state as follows:

P2602.1 General. The water-distribution and drainage system of any building or premises where plumbing fixtures are installed **shall be connected to a public water supply or sewer system, respectively, if available.** Where either a public water supply or sewer system, or both, are not available, or connection to them is not feasible, an individual water supply or individual (private) sewage-disposal system, or both, shall be provided.

P2602.2 Flood-resistant installation. In flood hazard areas as established by Table R301.2 (1):
Water supply systems shall be designed and constructed to prevent infiltration of floodwaters.
Pipes for sewage disposal systems shall be designed and constructed to prevent infiltration of floodwaters into the systems and discharges from the systems into floodwaters.

The Section 2.23.1 of the Grand Rapids Code of Ordinances states as follows:

The owner of each house, building or other structure equipped with plumbing fixtures and used for human occupancy, employment, recreation or other potable use, e.g., domestic use, situated within or outside the City and abutting any street, alley, right-of-way or public utility easement in which there is located, or may in the future be located, a public watermain served by the City Water System, shall, at her, his or its expense, install suitable plumbing facilities therein and to ***connect*** **such facilities directly to the public watermain, provided said public watermain is within a two hundred (200) foot radius** of the house, building or other structure where connection will occur and, provided further, such connection shall not be required to a house, building or other structure where on the effective date of this Section it was served by a private *water* well until such time as such private *water* well fails and the local health agency governing private *water*

> wells has determined that such failure exists and that it is unable to issue a permit for repair or replacement of such failed well within the parcel of property where the failed well is located. Well failure shall be as determined and defined by the local health agency governing private *water* wells within the areas served by the Water System. Except as provided in the immediately preceding sentences, all domestic *water* usage at such connected house, building or structure shall be through the Water System; private wells shall not be permitted to provide domestic *water* service to such house, building or structure; and once connected to the public Water System disconnection shall be prohibited. It shall be the owner's responsibility to plug or cap the abandoned domestic *water* well and contact the local health agency that governs private *water* wells for proper procedures for plugging and capping such abandoned domestic *water* wells. Notwithstanding any current or future agreement between the City and another municipality being served by the City Water System, said municipality shall have the option of adopting the provisions of this section.

Further, the Governor's 21st Century Infrastructure Commission has made several recommendations requiring connection to public water and sanitary sewer service at the time of a system failure, to update the public health code requirements regarding connections, to institute regular inspection and maintenance cycles for well and septic systems and to provide that some form of circuit breaker relief be provided where affordability is an issue.

Health Department officials were asked about the possibility of adding ordinances, rules or regulations requiring connection to public utilities for new construction, upon sale, or upon well or septic failure. Said officials indicated that they do encourage compliance with all local ordinances and may be able to deny a permit depending on how an ordinance is written. Said officials then indicated that how far they can go to enforce a local ordinance is limited by lack of State or County policy guidance.

Said officials also indicated, when an option is available, property owners believe the cost to connect to public utilities will be too expensive. Property owners also understand that they will have monthly utility bills if they connect to the public water and sanitary sewer systems. Property owners are also concerned, with respect to public water service, that (a) they won't be able to use as much water as they want because of the cost or (b) unacceptable chemicals will be added to the water. Property owners may also believe they have a right to use the water running below their property because they own it. Further, property owners look at the well/septic system solution as a one-time cost and don't take into account ongoing maintenance even when provided information on the proper maintenance for the private systems.

The life span of private wells and septic systems is estimated at between 25 to 30 years. The approximate costs for new installations are $8,000 to $9,000 for septic systems and $4,000 to $6,000 for water wells, or a total of $12,000 to $15,000 for both. The Sub-Committee believes that in order to encourage connection to the public water and sanitary sewer systems the cost to connect to the public system would need to be equal to or less than this.

The Sub-Committee reviewed the total cost to connect to public water supply and sanitary sewer systems (see insert) and determined it was substantially higher than connecting to a private water well and septic system. The total estimated cost for connection to the water supply system is approximately $16,500 and to the sanitary sewer system, is approximately $17,000, for a total cost of approximately $33,000 to connect to both.

With this information, the Sub-Committee reviewed each cost component of connection to the public water and sanitary sewer systems.

Readiness-to-Serve Charge

Modeling was used to determine (a) what would happen if a balanced/uniform readiness-to-serve charge was used across all communities and (b) the impact of reducing the readiness-to-serve charge by 5%, 10% and 15% (see Attachment B). Changes in the readiness-to-serve charge were shown to have minimal impact. Therefore, the Sub-Committee recommends that no change be made to the readiness-to-serve charge.

Water/Sewer Connection Estimate (20,000 sf base lot)	Total Estimated Costs		
	Water	Sewer	
Front Footage Fee (100')	$8,100	$9,000	
Connection Fee	$2,959	$2,959	
Stub Fee	$2,850	$2,900	
Meter Setting Fee	$45	$0	
Inspection Fee	$70	$70	*
Lateral (50' setback)	$2,000	$2,000	
Street Opening Permit	$50	$50	**
Local Fees	$1,000	$1,000	
Proposed MCC*	$0	$0	
Proposed PRC*	$0	$0	
TOTAL	$17,074	$17,979	
Water/Sewer Total	$35,053		

*Inside City Limits $15

**$30 Water and $30 Sewer inside City Limits

Front Footage Charge

Front footage charges contain many elements. There are three basic forms of obligations: deferred front footage charges, developer payback agreements and deferred special assessments. The Agreements established a new method of calculating front footage charges that moved the basis from historical cost at time of construction to current cost at time of connection. Developer payback agreements in partner communities vary, but are self-contained.

Many partner communities have undeveloped areas where utilities have not yet been extended. The front footage charge is used by such partner communities to recoup the cost of providing infrastructure built to incent development in certain areas within their USD. If front footage fees were eliminated, there would need to be another way for communities to recoup this cost. The number and amount of payback agreements identified on Attachment D, currently in existence were reviewed. Partner communities have agreements where they are still owed front footage charges from these agreements.

It was determined that the use of these agreements should not be discontinued. It should be up to the partner community to determine if it wants to use them. The Sub-Committee determined that system-wide, the elimination of these fees did not have a significant impact on rates and charges, but that the impact on specific communities could be significant. Attachment C includes a history of front footage fees. As a result of the Sub-Committee's research, it recommends that no change be made to the current policy on front footage charges. The Sub-Committee further recommends that each partner community retain the current discretion to manage front footage charges, payback agreements and deferred special assessments.

Stub Fee

The Sub-Committee's review showed that the stub fee has no impact on rates. The stub fee is hardly ever charged as a portion of the connection fee at the time of connection because the developer usually pays the stub fees as the property is developed. There is a benefit to the developer adding the stubs so the

roadway doesn't need to be disturbed when the property is connecting. The Sub-Committee discussed the option of charging a stub fee to a developer when it requests infrastructure be provided for the development and of not charging a stub fee upon connection when the community itself has chosen to build out an area to incent development. After completing its review, the Sub-Committee recommends that the water supply and sanitary sewer system rules and regulations be amended to provide this flexibility.

Integrated Connection Fees

The integrated connection fee is one of the measures used to achieve the concept of sustainable growth, i.e. growth pays for growth. Property owners using more land pay a higher fee than those using less land. The integrated connection fees were established to recognize capital improvements and debt related to the existing water supply and sanitary sewer systems.

The Sub-Committee examined whether a desire to incent current well/septic users and new customers to connect to the public systems is consistent with sustainable growth practices.

The USDs in partner communities and their interaction with the UUBs has helped concentrate utility users effectively. However, land is being used differently today than it has been in the past. There are other factors that have likely had more impact on sustainable growth practices than the integrated connection fee.

The one-time impact on water and sanitary sewer rates of the elimination of the integrated connection fee is estimated to be 2.72% on water rates and 2.08% on sanitary sewer rates. This was an area of interest of the Sub-Committee. It first discussed a phased approach to reduction of the integrated connection fee as the most practical and most affordable option.

Subsequently, it reviewed alternatives that would recognize the cost of reviewing and processing a connection and reflect a portion of the cost of "buying into to the system." Staff prepared a review that suggested implementation of two elements to update the calculation of the integrated connection fee:

1. plan review and connection component ("PRC") that would recover the costs associated with the account set-up and plan review; and

2. meter capacity component ("MCC") that would be based on the meter acquisition cost.

Moving in this direction updates the integrated connection fee to recognize fulfillment of its original cost recovery purpose, to recognize the current cost of connection to the system and to remove a barrier to connections. The PRC and MCC would be treated under the water and sanitary sewer rate studies as a credit against the integrated system revenue requirement.

The updated integrated connection fee would be implemented over two rate study years and would have an estimated modest 0.81% impact on water rates and 0.75% impact on sewer rates in the first rate study year.

A full description of both the calculation of the PRC and MCC is found in Attachment E.

Other Fees

The remainder of the costs of connection include a meter setting fee, inspection fee, street opening permit, lateral fee, and various local fees. Together, these fees were estimated to make up less than $5,000 of the total cost of connection. Taken individually, none was thought to have a substantial enough impact on the total cost of connection to make changes to them.

4 ANALYSIS

The Sub-Committee found that there were varying impacts achieved by eliminating the front footage fee, integrated connection fee, and stub fee in different combinations. The modeling was done using a 20,000 square foot base lot (see insert).

Water/Sewer Connection Estimate (20,000 sf base lot)	Total Estimated Costs			W/O Front Footage Fee (FFF)		W/O Connection Fee (CF)		W/O CF & FFF		W/O CF, FFF & Stub Fees		W/O CF but with PRC and MCC	
	Water	Sewer		Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer
Front Footage Fee (100')	$8,100	$9,000		$0	$0	$8,100	$9,000	$0	$0	$0	$0	$8,100	$9,000
Connection Fee	$2,959	$2,959		$2,959	$2,959	$0	$0	$0	$0	$0	$0	$0	$0
Stub Fee	$2,850	$2,900		$2,850	$2,900	$2,850	$2,900	$2,850	$2,900	$0	$0	$2,850	$2,900
Meter Setting Fee	$45	$0		$45	$0	$45	$0	$45	$0	$45	$0	$45	$0
Inspection Fee	$70	$70	*	$70	$70	$70	$70	$70	$70	$70	$70	$70	$70
Lateral (50' setback)	$2,000	$2,000		$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000
Street Opening Permit	$50	$50	**	$50	$50	$50	$50	$50	$50	$50	$50	$50	$50
Local Fees	$1,000	$1,000		$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Proposed MCC	$0	$0		$0	$0	$0	$0	$0	$0	$0	$0	$175	$175
Proposed PRC	$0	$0		$0	$0	$0	$0	$0	$0	$0	$0	$670	$670
TOTAL	$17,074	$17,979		$8,974	$8,979	$14,115	$15,020	$6,015	$6,020	$3,165	$3,120	$14,960	$15,865
Water/Sewer Total	$35,053			$17,953		$29,135		$12,035		$6,285		$30,825	

*Inside City Limits $15

**$30 Water and $30 Sewer Inside City Limits

MCC = Meter Connection Component

PRC = Plan review and connection component

The front footage fee is the highest fee and, therefore, has the greatest impact if eliminated. Its elimination also causes the most complexity with the untangling of payback agreements and ensuring that communities can still recoup investments in infrastructure made to incent development.

The Sub-Committee considered that the integrated connection fee may no longer be needed. However, elimination of the integrated connection fee alone only reduces the total cost to connect to about $28,000, which is still much higher than the average cost for a private well/septic system.

Elimination or adjustment of both the front footage fee and the integrated connection fee would be needed to bring the cost to below the average cost for a private well/septic system. The elimination or

adjustment of the integrated connection fee could be a feasible method of reducing the cost of connection, but elimination of front footage fees would not be in the best interest of many of the partner communities due to the complexities of payback agreements. The Sub-Committee recommends that the elimination or reduction of front footage fees is best left to individual partner communities. Each partner community understands the circumstances of each situation and is the most appropriate judge of the value of a waiver or reduction of the payback amount. A future option may be to limit use of payback agreements. Under the Agreements, communities have the option of applying the front footage fee or reducing or waiving it. Grand Rapids Charter Township currently offers financing options for the front footage fee.

After review of payback agreements currently in effect (see Attachment D) and on the amount received by each community for front footage fees (see Attachment C), the Sub-Committee concluded that a very small percentage of potential properties that could be connected to the public water or sanitary sewer system are subject to front footage fees. Payback agreements are similar to special assessments in that they are direct arrangements between a partner community and a property owner or owners.

The Sub-Committee concluded that there is substantially more land area within partner community UABs where front footage fees are not used than where they are. Thus, the cost of connection for a significant area served by the public water and sanitary sewer systems is significantly reduced by not having to pay the front footage fees. Additionally, the Sub-Committee concluded that each partner community could address front footage fee relief separately by discounting or eliminating front footage fees to provide further inducement for connections.

With that in mind, the Sub-Committee began to focus on the elimination of the integrated connection fees. If the fee were eliminated it would be a one-time loss in revenue in the year the change is made. It was determined that approximately 2,000 new residential water customers and 1,500 new residential sanitary sewer customers would be needed in that same year to offset the increase caused by the elimination of the integrated connection fees. The addition of larger, commercial customers could reduce the number of customers needed. More modeling on the effects of phasing the elimination or phasing of the fees in the addition of new connections is recommended.

Equity was discussed for those that have paid connection fees in the past. Is it fair to discontinue this fee for future connections? Would these users now be expected to pay higher rates to cover the cost of the new, lower cost connections? It was determined that these types of changes have been made in the past with little to no impact as users of the systems understand the need to adjust policies and procedures due to changes that occur. The intent is that rates would actually be kept at a lower amount through the addition of new customers generated by this change.

Preliminary work has been done to determine a base level where integrated connection fees could be set to cover actual costs of connection. The proposed PRC and MCC elements of the updated integrated connection fee will generate approximately $970,000 in annual revenue for the water supply and sanitary sewer systems combined based upon the average historic number of connections per year. This revenue will offset in part the loss of current integrated connection fee revenue. The net effect is an increase in the revenue requirement of about 1.34% ($533,377) for water and 1.25% ($627,226) for sanitary sewer (see Attachment F)

The Sub-Committee next focused in on potential areas and specific properties that are not now connected to public water and sanitary sewer. An estimated 2,344 water-only customers and 729 sewer-only customers were identified as potential customers for additional connections (See Insert).

Specific property addresses where infrastructure is available and are not connected to either water and/or sanitary sewer and opportunities to add infrastructure within the USDs to incent growth have yet to be identified.

DATA SUMMARY			
Community	Class	Water Only	Sewer Only
Cascade	Residential	1,222	68
	Commercial	16	4
Grand Rapids	Residential	152	65
	Commercial	69	10
Grand Rapids Township	Residential	410	128
	Commercial	12	5
Kentwood	Residential	50	59
	Commercial	12	3
Tallmadge	Residential	4	7
	Commercial	1	1
Walker	Residential	372	141
	Commercial	24	12
Wright	Residential	0	158
	Commercial	0	68
TOTALS		2,344	729

5 CONCLUSIONS

The Sub-Committee believes that updating of integrated connection fees as described in this report is a feasible method to achieve the outcome of reducing the total cost of connection and reducing cost as a barrier.

The Sub-Committee notes that the UAB must remain cognizant of the impact this will have on system revenues for both the water supply and sanitary sewer systems and the resulting impact on the bond coverage ratio. It is for this reason that the Sub-Committee recommends reduction of the integrated connection fee rather than its elimination. Proceeding in this manner will reduce the impact. The reduced integrated connection fee would be implemented in the 2017 Water and Sanitary Sewer Rate Study, but the rate impact would be spread over two rate study years.

It bears repeating that there is substantially more land area throughout the USDs where front footage fees are not used than where they are being used. This means that the cost of connection for the vast majority of the USDs is already reduced by this amount and would amount to a significant additional reduction in the cost of connection if the recommendation was implemented regarding the integrated connection fees.

The Sub-Committee concluded that individual partner communities can address front footage fee relief separately by discounting or eliminating front footage fees to provide further inducement for connections.

The Sub-Committee acknowledges that this approach is a change in philosophy. The integrated connection fee was intended to help pay the cost of developing water and sewer infrastructure. The proposed updated integrated connection fee has been sized to pay for the cost of evaluation of a connection, establishing service account and providing a customer meter.

The philosophical basis for the proposed change is an understanding that an emphasis on densification within the USDs is a valuable outcome. It provides public health benefits by eliminating potential surface or sub-surface water contamination from failing septic tanks. It reduces costs for those wishing to develop affordable housing. It provides an opportunity to attract new customers that will help existing customers pay annual operating and maintenance costs.

The recommendations the Sub-Committee would like to discuss with the UAB are as follows:

1. Maintain the readiness-to-serve charge as this charge has minimal impact on the cost of connection.
2. Continuation of the current flexible policy on front footage fees, developer payback agreements and deferred assessments because of the limited impact of these fees on the revenues of the systems and the significant financial impact for some partner communities. Individual partner communities may consider discounting or eliminating these fees.
3. Amendment of the applicable Rules and Regulations to allow options for when a stub fee is charged or when it can be waived.
4. Introduction of a revised integrated connection fee that would be comprised of the Plan Review and Connection ("PRC") component and a Meter Capacity Charge ("MCC") component to replace the current integrated connection fee as part of the 2017 Water and Sanitary Sewer Rate Study.
5. Development of strategies for increasing the customer base or increasing billed flow to help offset the impact of the revisions to the integrated connection fee.
6. Evaluate development of ordinance amendments to strengthen provisions regarding situations where connection to the public water and/or sewer system is required in conjunction with any State effort based on implementation of the recommendations of the 21st Century Infrastructure Commission including the following:
    a. UAB Policy be developed with affected stakeholders to guide connections; and
    b. work group should continue to work on the development of a potential model ordinance.
7. Amend the Agreements to implement the updated integrated connection fee model.
8. Make the revisions to the integrated connection fee effective January 1, 2018 as part of the 2017 Water and Sanitary Sewer Rate Study. The first year rate impact is an estimated modest average increase of rates of 0.81% for the Water Supply System and 0.75% for the Sanitary Sewer System. Actual results will vary by partner community and by application of the partner community circuit breaker to the rate. By implementing this charge on January 1, 2018, the impact will be split over two rate study periods, which will spread the impact on rates effective in 2019 and 2020.
9. Track and evaluate the impact of the recommended changes.

As revised following discussion with Sub-committee, May 2, 2017

ATTACHMENT A

Water/Sewer USD Changes 2000 to Current Date

CITY OF GRAND RAPIDS, MICHIGAN
WATER/SEWER UTILITY SERVICE DISTRICT AREAS FOR UAB PARTNERS

KEY:
Reductions
Additions

WATER - RATE STUDY YEAR

UAB Partners	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Grand Rapids	45.30	45.30	45.36	45.36	45.36	45.36	45.36	45.36	45.36	45.36
Walker	25.43	25.43	25.43	25.43	25.43	25.43	25.43	25.43	25.43	25.43
Kentwood	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Cascade	25.75	25.75	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53
Grand Rapids Township	13.56	13.56	14.08	14.08	14.42	14.42	14.42	14.42	14.42	14.42
Tallmadge Township	7.75	7.75	2.64	2.64	2.64	2.40	2.40	2.43	2.44	2.44
East Grand Rapids	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37
Ada	7.15	7.15	7.15	7.15	7.15	7.15	7.15	7.15	7.15	7.15
Total	142.31	142.31	135.76	135.76	136.10	135.66	135.66	135.69	135.70	135.70

UAB Partners	2010	2011	2012	2013	2014	
Grand Rapids	45.36	45.36	45.36	45.36	45.36	
Walker	25.43	25.43	25.43	25.43	25.43	
Kentwood	14.00	14.00	14.00	14.00	14.00	
Cascade	20.45	20.45	20.45	20.45	20.45	
Grand Rapids Township	10.73	10.33	10.33	10.33	10.33	
Tallmadge Township	2.44	2.44	2.44	2.44	2.44	2.66
East Grand Rapids	3.37	3.37	3.37	3.37	3.37	
Ada	7.15	7.15	7.15	7.15	7.15	
Total	128.93	128.13	128.13	128.13	128.13	

SEWER - RATE STUDY YEAR

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Grand Rapids	45.30	45.30	45.36	45.36	45.36	45.36	45.36	45.36	45.36	45.36
Walker	13.26	13.26	13.26	20.17	20.17	20.17	20.17	20.17	20.17	20.17
Kentwood	14.00	14.00	14.00	14.00	14.00	14.00	14.23	14.23	14.28	14.28
Cascade	25.75	25.75	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53
Grand Rapids Township	12.17	12.17	12.17	12.17	12.17	11.82	11.82	11.82	11.82	11.82
Tallmadge Township	7.75	7.75	2.64	2.64	2.64	2.40	2.40	2.43	2.44	2.44
Wright Township	-	-	-	0.89	0.89	0.89	0.89	0.89	0.89	0.89
East Grand Rapids	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37
Ada	7.15	7.15	7.15	7.15	7.15	7.15	7.15	7.15	7.15	7.15
Meijer - Algoma	-	-	-	-	0.20	0.20	0.20	0.20	-	-
Total	134.75	134.75	127.68	123.45	129.69	128.69	129.16	129.21	129.01	129.01

	2010	2011	2012	2013	2014	2015
Grand Rapids	45.36	45.36	45.36	45.36	45.36	
Walker	20.17	20.17	20.17	20.17	20.17	
Kentwood	14.28	14.28	14.28	14.28	14.28	
Cascade	16.21	16.21	16.21	16.21	16.21	
Grand Rapids Township	7.79	7.95	7.95	7.95	7.95	7.97
Tallmadge Township	2.44	2.44	2.44	2.44	2.44	
Wright Township	0.89	0.89	0.89	0.89	0.89	
East Grand Rapids	3.37	3.37	3.37	3.37	3.37	
Ada	7.15	7.15	7.15	7.15	7.15	
Meijer - Algoma	-	-	-	-	-	
Caledonia Township*	-	-	-	-	-	
Total	117.66	117.82	117.82	117.82	117.82	

* contract being amended extending the date when they need to join to 12/31/15

ATTACHMENT B

CITY OF GRAND RAPIDS, MICHIGAN
2013 FINAL WATER/SEWER RATE STUDY
ANALYSIS OF COMMODITY CHARGES AS A PERCENT OF REVENUE REQUIREMENTS
WITH UNIFORM & BALANCED RTS CHARGES UNDER MULTIPLE RTS REDUCTION SCENARIOS
FOR RATES EFFECTIVE JANUARY 1, 2014

		Water					Sewer				
		Revenue Requirement			Residential Rates		Revenue Requirement			Residential Rates	
Community		Commodity	Total	Percentage	Comm per HCF	RTS per HCF	Commodity	Total	Percentage	Comm per HCF	RTS per HCF
Grand Rapids	2013 Rate Study	$14,710,562	$22,974,830	64.029%	$1.70	$1.14	$25,757,268	$39,617,082	64.721%	$3.21	$2.70
	Balanced/Uniform RTS	$14,703,881	$22,974,830	64.000%	$1.70	$1.14	$25,536,932	$39,617,082	64.000%	$3.17	$2.75
	5% RTS Reduction	$15,852,633	$22,974,830	69.000%	$1.83	$0.99	$27,195,787	$39,617,082	69.000%	$3.42	$2.50
	10% RTS Reduction	$17,001,324	$22,974,830	74.000%	$1.96	$0.83	$29,275,641	$39,617,082	74.000%	$3.67	$2.03
	15% RTS Reduction	$18,150,116	$22,974,830	79.000%	$2.10	$0.68	$29,557,495	$39,617,082	79.000%	$3.82	$1.65
Walker	2013 Rate Study	$2,870,736	$3,087,430	60.722%	$1.57	$1.43	$2,211,105	$4,730,519	46.741%	$2.68	$3.56
	Balanced/Uniform RTS	$1,975,942	$3,087,430	64.000%	$1.65	$1.31	$3,027,532	$4,730,519	64.000%	$3.67	$3.83
	5% RTS Reduction	$2,130,313	$3,087,430	69.000%	$1.78	$1.13	$3,266,068	$4,730,519	69.000%	$3.96	$3.30
	10% RTS Reduction	$2,284,683	$3,087,430	74.000%	$1.91	$0.94	$3,580,584	$4,730,519	76.000%	$4.24	$2.79
	15% RTS Reduction	$2,439,054	$3,087,430	79.000%	$2.04	$0.76	$3,737,110	$4,730,519	79.000%	$4.53	$2.27
Kentwood	2013 Rate Study	$2,663,408	$4,065,885	65.260%	$1.52	$1.68	$3,184,313	$3,696,093	86.153%	$2.30	$1.26
	Balanced/Uniform RTS	$2,602,166	$4,065,885	64.000%	$1.49	$1.74	$2,365,500	$3,696,093	64.000%	$1.71	$2.91
	5% RTS Reduction	$2,805,461	$4,065,885	69.000%	$1.61	$1.50	$2,550,304	$3,696,093	69.000%	$1.84	$2.54
	10% RTS Reduction	$3,008,755	$4,065,885	74.000%	$1.72	$1.25	$2,735,109	$3,696,093	74.000%	$1.98	$2.17
	15% RTS Reduction	$3,212,049	$4,065,885	79.000%	$1.84	$1.01	$2,919,913	$3,696,093	79.000%	$2.11	$1.79
Cascade Twp	2013 Rate Study	$1,749,852	$2,945,147	59.425%	$2.03	$2.32	$1,018,936	$2,059,615	49.472%	$2.57	$5.52
	Balanced/Uniform RTS	$1,884,894	$2,945,147	64.000%	$2.24	$2.05	$1,318,154	$2,059,615	64.000%	$3.32	$4.71
	5% RTS Reduction	$2,033,151	$2,945,147	69.000%	$2.42	$1.75	$1,421,134	$2,059,615	69.000%	$3.58	$3.65
	10% RTS Reduction	$2,179,409	$2,945,147	74.000%	$2.58	$1.46	$1,524,115	$2,059,615	74.000%	$3.84	$2.38
	15% RTS Reduction	$2,326,666	$2,945,147	79.000%	$2.77	$1.16	$1,627,096	$2,059,615	79.000%	$4.10	$2.54
Grand Rapids Twp	2013 Rate Study	$1,180,854	$2,077,895	56.807%	$1.71	$1.77	$884,526	$2,369,285	35.443%	$2.34	$5.12
	Balanced/Uniform RTS	$1,329,853	$2,077,895	64.000%	$1.93	$1.48	$1,516,342	$2,369,285	64.000%	$3.80	$3.08
	5% RTS Reduction	$1,433,748	$2,077,895	69.000%	$2.08	$1.28	$1,634,807	$2,369,285	69.000%	$4.09	$2.67
	10% RTS Reduction	$1,537,642	$2,077,895	74.000%	$2.23	$1.02	$1,753,271	$2,369,285	74.000%	$4.39	$2.25
	15% RTS Reduction	$1,641,537	$2,077,895	79.000%	$2.38	$0.87	$1,871,735	$2,369,285	79.000%	$4.69	$1.84
Tallmadge Twp	2013 Rate Study	$87,276	$125,228	69.693%	$1.53	$0.81	$177,483	$266,625	66.567%	$10.53	$6.22
	Balanced/Uniform RTS	$80,146	$125,228	64.000%	$1.24	$1.10	$170,640	$266,625	64.000%	$10.12	$6.69
	5% RTS Reduction	$86,407	$125,228	69.000%	$1.49	$0.85	$183,971	$266,625	69.000%	$10.91	$5.79
	10% RTS Reduction	$92,669	$125,228	74.000%	$1.75	$0.60	$197,303	$266,625	74.000%	$11.71	$4.89
	15% RTS Reduction	$98,930	$125,228	79.000%	$4.00	$0.34	$210,634	$266,625	79.000%	$12.50	$3.09

Note: Wright Twp is calculated using a monthly RTS charge as opposed to a commodity charge.

City of Grand Rapids, Michigan
History of Front Footage & Connection Fees

FS Year	Water									Sewer								
	FF	Kentwt-C	GR	Walker	Kentwood	Cascade	GRT	Talmadge	Check-FF	FF	Kentwt-C	GR	Walker	Kentwood	Cascade	GRT	Talmadge	Check-FF
76-77	$ 84,118	$ 138,585	$ 151,902	$ 20,121	$ 27,719	$ 22,496	$ 7,466	$ -	$ (82,071)	$ 80,882	$ 138,204	$ 124,069	$ 23,219	$ 51,348	$ 20,280	$ 9,069	$ -	$ (8,899)
78	90,222	176,903	154,868	56,239	18,057	26,585	12,875	-	1	84,780	169,934	129,724	66,407	28,424	9,695	8,188	-	3,276
79	71,979	133,524	97,807	41,333	28,997	11,921	27,445	-	1	70,254	136,583	109,884	49,221	27,081	8,125	17,545	-	1
80	55,611	134,300						-	229,911	77,027	133,840	232,247	50,283	21,810	10,495	15,359	-	(119,227)
81	93,458	125,681	195,837	50,027	12,300	7,542	11,307	-	2,126	94,889	122,073	139,078	63,788	8,320	2,850	9,027	-	(6,301)
82	88,758	64,409	111,414	16,936	10,445	8,125	5,945	-	299	86,651	60,982	86,679	21,065	13,084	4,595	2,200	-	(0)
83	49,327	66,247	59,094	23,821	7,902	8,353	16,404	-	(0)	55,460	68,953	68,225	26,024	5,810	2,855	1,700	-	(0)
84	49,782	89,330	86,607	22,934	9,095	9,698	10,767	-	0	54,366	94,572	95,425	29,758	11,905	5,815	6,256	-	(1,260)
85	59,718	109,084	85,576	38,098	24,556	14,187	6,381	-	0	68,443	106,541	96,886	40,467	23,778	6,300	7,783	-	0
86	101,018	113,778	134,658	27,119	22,491	20,217	10,311	-	(0)	90,410	100,857	84,630	29,663	18,824	10,125	7,705	-	1
87	99,086	121,309	126,007	28,193	21,680	24,556	19,956	-	0	134,133	118,992	131,890	47,503	85,144	8,715	3,873	-	0
88	148,363	159,103	179,395	49,665	30,331	19,201	28,673	-	(0)	109,320	170,661	139,494	78,523	32,993	7,170	27,130	-	(5,329)
89	106,328	134,956	-	-	125,577	45,242	14,190	17,649	18,826	160,437	145,175	164,475	67,255	47,300	10,524	16,258	-	0
90	93,434	-	55,066	2,126	6,453	935	30,834	-	(0)	109,945	122,175	115,066	61,250	26,053	8,490	21,262	-	(1)
91	125,415	-	117,932	-	5,016	2,111	356	-	0	104,546	106,424	106,959	49,821	35,601	6,928	11,660	-	0
92	43,790	-	26,165	7,128	4,972	2,883	2,402	-	0	99,320	84,339	113,900	42,673	16,770	3,960	5,400	-	976
93	64,599	-	7,317	-	18,021	23,897	15,364	-	(0)	99,320	88,003	103,426	48,866	84,068	10,470	17,484	-	(57,431)
94	66,188	-	33,123	14,190	11,102	-	7,774	-	0	78,966	102,089	66,721	53,722	33,782	4,830	27,995	-	5
95	60,226	-	16,231	7,048	6,142	467	30,338	-	(0)	106,647	110,141	88,451	48,243	52,199	13,430	34,465	-	(0)
96	48,642	-	20,962	2,961	15,558	1,946	8,125	-	0	53,737	114,843	93,019	58,707	24,456	9,876	16,427	1,095	(0)
97	123,760	-	28,052	28,036	63,248	5,021	(1,608)	-	(0)	182,309	115,455	52,233	60,387	160,531	5,914	14,699	-	(0)
98	97,038	-	20,983	-	56,836	7,012	12,201	-	(0)	123,563	140,010	87,712	68,997	72,930	8,845	23,708	385	0
99	412,894	-	91,018	32,117	20,681	234,187	34,991	-	(0)	257,735	130,717	225,176	57,719	83,957	11,730	6,480	3,990	0
00	230,931	-	38,202	6,688	47,910	104,749	33,382	-	(0)	124,172	84,493	95,484	27,946	79,202	9,655	2,158	180	(0)
01	221,913	-	155,624	12,935	12,481	18,601	22,272	-	0	100,683	-	29,236	16,395	47,807	7,245	-	-	0
02	319,806	-	94,874	99,341	57,771	21,690	46,130	-	(0)	330,796	-	142,295	99,426	74,983	14,032	-	-	0
03	201,259	-	183,235	2,904	(2,980)	18,096	-	-	(0)	126,180	-	84,420	7,707	31,902	10,063	(7,932)	-	0
04	207,058	-	43,233	34,104	51,063	41,803	38,855	-	0	165,190	-	57,028	22,751	57,187	16,766	11,459	-	(0)
05	869,531	-	340,947	16,790	112,542	36,357	63,895	-	0	222,091	-	104,078	22,157	46,961	-	48,895	-	(0)
06	309,698	-	114,797	51,789	96,451	43,061	3,600	-	(0)	140,673	-	21,065	56,189	44,486	-	18,953	-	-
07	234,589	-	114,945	18,762	27,558	21,315	52,479	-	0	218,376	-	128,758	29,883	34,927	7,000	27,808	-	(0)
08	148,006	-	32,385	-	78,172	37,448	-	-	0	119,442	-	61,456	6,908	29,117	11,285	10,686	-	(0)
09	126,645	-	86,388	(4,200)	8,629	13,150	22,678	-	0	104,112	-	106,476	(4,900)	2,536	-	-	-	(0)
10	48,939	-	333	23,206	-	25,400	-	-	0	26,394	-	(12,558)	15,550	16,912	-	6,490	-	(0)
11	23,059	-	4,950	-	7,659	10,450	-	-	(1)	(18,037)	-	(42,435)	9,000	-	-	15,378	-	(0)
12	57,162	-	7,501	24,417	3,905	11,884	9,455	-	(0)	22,672	-	7,381	7,513	4,878	-	7,900	-	-
13	147,276	-	19,848	15,250	-	32,713	79,665	-	-	43,909	-	19,316	-	-	-	24,593	-	-
14	91,780	-	8,219	14,099	55,458	11,949	(1,944)	-	(1)	106,570	-	18,630	17,850	59,280	2,800	7,010	-	-
15	164,387	-	9,108	13,955	-	141,324	-	-	-	28,020	-	7,055	5,940	4,400	10,625	-	-	-
16	739,095	-	53,829	12,500	107,531	51,440	15,800	-	-	176,285	-	60,495	39,140	4,400	22,750	-	-	-
Totals	$ 5,366,901	$ 1,541,738	$ 2,846,261	$ 940,736	$ 1,136,975	$ 1,104,841	$ 700,936	$ 18,626	$ 170,764	$ 4,292,588	$ 2,794,965	$ 3,508,559	$ 1,508,346	$ 1,470,136	$ 322,327	$ 480,550	$ 5,030	$ (195,990)

NOTE1: UMTP & WWTP existed in 1976-77 FS.

NOTE2: Retail & Wholesale Water & Sanitary Sewer Service Agreements
- Executed 01/01/99
- Effective for 1999 FS and rates/charges on 01/01/00

NOTE3: First Amendment
- Executed Fall 2000
- Effective Fall 2000 (for 2000 FS and rates/charges on 01/01/01)
- Established integrated connection fees.

NOTE4: Second Amendment
- Executed 07/01/02
- Effective 07/01/02 (for 2002 FS and rates/charges on 01/01/03)
- Amended application of integrated connection fees and calculation of square footage.
- Amended determination and application of integrated system cost (50%).

NOTE5: [ ] = Unreconciled difference in "Check-FF" column.
Otherwise, reconciled difference in "Check-FF" column (not attributable to front footage and/or connection fees).

Source: GR_Front_Footage_Fees_.xlsx

ATTACHMENT D

City of Grand Rapids, Michigan
Active Payback Agreement Summary
As of 09/10/14

Agreement No	Type	Customer Community	Account Name	Project Name	Agreement Date	Expiration Date	Agreement Amount	Payback(s) Amount	Agreement Balance
1	Sewer	Grand Rapids	Albers	East Leonard Trunk Sanitary Sewer	09/16/60	n/a	$ 4,782.84	$ -	$ 4,782.84
8	Water	Grand Rapids	David Gezon	Mayfield Avenue Water Extension	09/16/60	n/a	$ 2,049.99	$ 1,366.66	$ 683.33
13	Sewer	Grand Rapids	Lear, Incorporated	Eastern Avenue	06/01/61	n/a	$ 39,360.00	$ 30,039.62	$ 9,320.38
16	Water	Grand Rapids	Arthur Romence	Romance Street Water Main	09/16/60	n/a	$ 1,138.44	$ 480.00	$ 658.44
26	Sewer	Ada	Ada Township	30" Trunk Sewer-Argo, Aylsworth, Peterson	11/25/74	n/a		$ 6,246.15	$ (6,246.15)
27	Sewer	-	Plainfield Township	Laterals in Arnold's Subdivision	05/08/75	n/a		$ 17,422.00	$ (17,422.00)
29	Water	Kentwood	Kentwood	Wingate Apartments	08/31/76	n/a		$ -	$ -
33	Sewer	EGR	East Grand Rapids	Borderline Sewer	02/07/78	n/a		$ -	$ -
35	Water	EGR	East Grand Rapids	Borderline Sewer	02/07/78	n/a		$ 7,469.82	$ (7,469.82)
54	Sewer	Cascade	Cascade Charter Township	Transmission Charge (NOT Front Footage)	04/04/78	n/a		$ 123,240.00	$ (123,240.00)
54	Water	Cascade	Cascade Charter Township	Transmission Charge (NOT Front Footage)	04/04/78	n/a		$ 248,136.92	$ (248,136.92)
61	Water	GRT	Kent Intermediate School	Lincoln School	08/03/82	n/a	$ 222,177.82	$ 70,850.75	$ 151,326.89
117	Sewer	Kentwood	Paris Meadows Condo	East Paris Avenue	06/21/05	06/21/15	$ 11,690.00	$ -	$ 11,690.00
118	Sewer	Walker	Dreamscape LLC	Dreamscape Phase 1	09/20/05	09/20/15	$ 40,961.00	$ -	$ 40,961.00
119	Sewer	Tallmadge	Land Acquisition LLC	Lake Michigan Estates Phase 1	06/05/07	06/05/17	$ 10,075.80	$ -	$ 10,075.80
120	Sewer	Cascade	MAAS Johnson Properties	Turnberry Development	01/26/10	01/26/20	$ 1,179,000.00	$ -	$ 1,179,000.00
121	Water	GRT	A&C Land Development	Rainbow Child Development	09/13/11	09/13/21	$ 36,322.50	$ 9,455.00	$ 26,867.50
122	Sewer	GRT	GR Charter Township	Dunnigan Avenue	08/14/12	08/14/22	$ 18,452.00	$ -	$ 18,452.00
122	Water	GRT	GR Charter Township	Dunnigan Avenue	08/14/12	08/14/22	$ 48,470.00	$ -	$ 48,470.00
123	Sewer	Cascade	Cascade Charter Township	Stoneshire Site Condo Phase 2	05/13/14	05/13/24	$ 56,785.00	$ -	$ 56,785.00
123	Water	Cascade	Cascade Charter Township	Stoneshire Site Condo Phase 2	05/13/14	05/13/24	$ 45,340.00	$ -	$ 45,340.00
124	Sewer	Kentwood	Steelcase	Steelcase Fish Drain Interceptor (NOT Front Footage)	12/21/82	n/a	$ 459,000.00	$ -	$ 459,000.00
125	Sewer	Walker	City of Walker	Cambridge Grove Development	09/09/14	09/09/24	$ 45,000.00	$ -	$ 45,000.00
TOTALS							$ 2,220,545.19	$ 514,506.90	$ 1,706,038.29

NOTE1: City Engineering Office working with City Attorney's Office to expire and/or set expiration dates on open-ended payback agreements; formal action requirement through City Commission expected.
NOTE2: Negative agreement balances represent payback agreements with no absolute agreement amount.
NOTE3: Project names in red font are not Front Footage Agreements.
NOTE4: Payback agreements are on file in the City Engineer's Office and available upon request.

ATTACHMENT E

Rate Impact of New Methodology for Connection to the Water and Sewer Utility Systems

Water Utility:

Total Res Water PNC		$ 97,220
Total Comm Water PNC		$ 450,781
	Total	$ 548,001
2016 Rate Study ICF		
Collected - Water		$ 1,081,178
	Diff.	$ (533,177)
	% Change	-49%

Rate Impact By Customer Community

	GR	GRT	KTW	WLK	CAS	TAL	EGR	ADA	WRI	CAL	OTT	Gaines	Total
Integrated Connection Fees	$ 990,104	$ 58,538	$ 130,637	$ 115,976	$ 86,220	$ 6,350	$ 43,015	$ 50,548	$ -	$ -	$ -	$ -	$ 1,081,178
New Water PNC Credit	299,042	29,860	66,202	58,772	43,603	3,216	21,796	25,616	-	-	-	-	548,001
Increase in Revenue Requirement	$ 291,062	$ 28,808	$ 64,435	$ 57,204	$ 42,427	$ 3,182	$ 21,217	$ 24,932	$ -	$ -	$ -	$ -	$ 533,177
Percentage Impact	1.24%	1.40%	1.54%	1.81%	1.35%	1.87%	2.46%	2.29%	0.00%	0.00%	0.00%	0.00%	1.64%

Sewer Utility:

Total Res Sewer PNC		$ 61,670
Total Comm Sewer PNC		$ 357,430
	Total	$ 419,100
2016 Rate Study ICF		
Collected - Sewer		$ 1,046,326
	Diff.	$ (627,226)
	% Change	-60%

Rate Impact By Customer Community

	GR	GRT	KTW	WLK	CAS	TAL	EGR	ADA	WRI	CAL	OTT	Gaines	Total
Integrated Connection Fees	$ 611,786	$ 45,402	$ 137,491	$ 103,272	$ 63,774	$ 6,006	$ 30,981	$ 38,445	$ 3,326	$ 5,844	$ -	$ -	$ 1,046,326
New Sewer PNC Credit	249,048	18,166	55,971	41,365	25,544	2,405	12,409	15,399	1,332	2,341	-	-	419,100
Increase in Revenue Requirement	$ 366,738	$ 27,237	$ 82,520	$ 61,907	$ 38,230	$ 3,600	$ 18,572	$ 23,046	$ 1,994	$ 3,503	$ -	$ -	$ 627,226
Percentage Impact	1.58%	1.12%	2.09%	1.28%	1.66%	0.56%	0.86%	1.95%	0.81%	0.60%	0.00%	0.00%	1.25%

Note: Analysis uses assumption from the 2016 Rate Study for rate impact estimates. Currently Water and Sewer Connection Fees are applied as a credit against customer communities' revenue requirement. The proposed PNC Credit will replace the current connection fee credit.

JOELLEN C. THOMPSON, BECKY JO GLOVER, AND JOHN SCHIEBOLD

Collaboration Leads to Transformation and Positive Results in Grand Rapids, Mich.

THE CITY OF GRAND RAPIDS WATER SYSTEM AND ENVIRONMENTAL SERVICES DEPARTMENTS TRANSFORMED THEIR CUSTOMER SERVICE–RELATED FUNCTIONS FOR A MORE STREAMLINED ORGANIZATION, IMPROVED SERVICE TO CUSTOMERS, AND LOWER COSTS.

In Michigan in the late 2000s, the City of Grand Rapids Water System and Environmental Services Departments (the Departments) faced challenging economic conditions while customers' needs for service remained constant. Operating costs continued to rise, while revenues and budgets steadily decreased. The Departments had to become more efficient and effective with declining staff levels while still providing exceptional service. They needed to make changes not only to be sustainable but to make themselves less susceptible to privatization.

In November 2009, City Manager Greg Sundstrom crafted a memo to the mayor and city commissioners to announce the city's approach to resolving the situation: transform service delivery to elicit dramatic, sustainable results. The city's vision for transformation was optimistic. It was a major effort based on a new, outcome-driven model. The Departments would become leaner and more efficient by reorganizing and reducing the workforce, consolidating departments, and reengineering processes to meet their goals of reducing operating costs and becoming more competitive while maintaining service levels.

Layout imagery by Shutterstock.com artists: Yuriatinmorat, Rawpixel.com, metua, Vladvm

Before the transformation, the Departments' customer information system (CIS) was an aging, proprietary mainframe system that lacked standardized responses to typical customer inquiries and had only limited documentation on guidance for inquiries and tracking backlogged requests. Consequently, call handling was inefficient and client interactions were inconsistent, at times resulting in long wait times, confusion, and frustration for customers.

To transform their customer service function, the Departments implemented a modern CIS, redesigned business processes, and partnered with the city's emerging 311 program, Grand Rapids 311 (GR311). This partnership was part of a broader transformation effort that affected nearly all areas of the Departments' operations and eventually extended to all other city departments.

VISION AND GOALS

Providing stellar customer service while reducing costs and working more effectively required careful planning. Key components of the Departments' vision for customer service improvements included the following:

- Respond to all inquiries and account changes/setups within 24 hours
- Provide real-time service order resolution in the field
- Provide real-time notice of add-to-tax eligibility to parcel owners for delinquencies
- Introduce e-services
- Introduce paperless billing
- Reduce accounts-receivable aging more than 121 days by 46%
- Develop new standard operating procedures created to document processes
- Develop monitoring reports to manage exceptions
- Attain 95% fewer meter reading estimates
- Increase software uptime
- Provide real-time notice of cutoff status
- Drop and manage the cutoff threshold
- Provide value to the customer at the lowest reasonable cost

PROCESS

The Departments undertook a competitive assessment with EMA Inc. to improve business processes and efficiencies. The assessment evaluated the effectiveness and efficiency of each of the core water and wastewater functions within the organization—primarily water treatment, field operations, wastewater treatment, and customer service operations. The Departments worked with EMA Inc. to compare existing operations against industry-leading practices to identify the gaps between the current and desired future state of operations. Next they conducted a workforce analysis to identify opportunities to improve efficiency without compromising effectiveness. With long-range goals in place, potential improvements were identified, prioritized, and implemented.

The Departments worked with EMA Inc. to compare existing operations against industry-leading practices to identify the gaps between the current and desired future state of operations.

As part of the assessment initiative, the Departments identified policies and procedures that needed to be created or revised to support more efficient and effective customer service operations. The Departments reviewed each policy and procedure to ensure they were clear and consistent so that customers received high-quality service.

Building on the outcomes from the EMA assessment, the Departments went through rigorous business discovery sessions with GR311 to determine which services (i.e., calls, walk-ins, dispatching, scheduling appointments, e-mail, mobile) would transition to the 311 contact center. GR311 staff worked with the Departments to develop standard operating procedures based on the types of interaction. The procedures were also aligned with the various services the Departments delivered to their customers.

GR311 then worked with the Departments on how the customer service structure could be optimized to support the newly designed procedures, and nearly all job descriptions for positions in the Departments' customer service operation were rewritten. One goal for the new job descriptions was to increase the breadth of skills required for each position to enable each GR311 agent and Department staff member to effectively handle many functions as opposed to the narrowly defined responsibilities used in the past.

The Departments then identified how technology between GR311 and the Departments needed to be configured to support the procedures. The Departments performed Lean analysis for each potential change affecting the organization, business processes, and technology before implementation. (Lean analysis was originally developed by the Toyota Corporation as a process to minimize waste without sacrificing production. The City of Grand Rapids has adopted the Lean methodology to support continuous improvement across the entire city organization.) These changes enabled GR311 agents to work in up to 24 different software/data applications and 41 separate modules daily in the course of answering calls and handling interactions.

A key to success was enabling the GR311 staff to resolve the

Departments' calls, walk-ins, e-mails, and mobile submissions using technology to dispatch work to field staff in multiple departments. To achieve this, the Departments' customer service staff identified as many potential interaction types as possible, including account inquiries, leaks, starting/stopping service, and scheduling meter replacements. Next, each contact type was scripted with standard operating procedures that enable GR311 to handle customer contacts consistently.

When GR311 moved water interactions to the GR311 contact center, the approach was to handle account-centric information calls. Calls received are categorized into three basic tiers. Tier 1 calls are basic customer inquiries such as account balances. A tier 2 call requires an action to be taken on an account (e.g., scheduling a meter replacement or install, fire hydrant maintenance requests). Tier 3 calls are related to a process to write off fees and other similar requests. GR311 handles many of these interactions directly.

To date, GR311 has taken on tiers 1, 2, and 3 contacts and only forwards 2.9% of all interactions back to the Departments via the established message process. For any complex inquiry requiring greater operational expertise to resolve, the city's customer relationship management (CRM) system, as scripted by the Departments, allows GR311 staff to send a service message to a Department subject matter expert.

In addition to providing process documentation, the service agents' scripts were configured into the city's CRM system to categorize the contact type and resolution code, thereby supporting critical data analytics. The Departments wanted the ability to measure and report contact-handling efficiency metrics such as average hold times, abandonment rates, and call handling times. The Departments also wanted to be able to analyze customer interaction-related characteristics like the types of contacts customers made and the number of customer inquiries by type.

Another important element of the GR311 system was the creation of a comprehensive knowledge base, which serves as a repository of information that contact center agents can use to answer nonservice-related inquiries, provide account change services, and schedule field service appointments. Some guidance already existed, but in several areas the Departments had to create new documentation that was robust, accurate, and easily accessible so that GR311 staff could quickly identify and resolve most customer issues.

After the integrated processes were launched, the Departments collaborated with GR311 to observe each new process as it was executed for accuracy and efficiency. With the initial launch of GR311, the Water Department had prepared scripts for some 125 topics, and as time passed and staff members gained skill, the Departments and GR311 worked together to continuously improve the scripts. New scripts have been added as a result of contact data indicating additional areas of frequent contacts, and now there are 316 scripts for the Departments' processes. City-wide there are 2,916 scripts supporting the business processes of 29 various city departments.

The Departments pay GR311 for each Department call handled on the basis of the time agents spend resolving customer calls and messages, paying actual expenditures monthly. More effective scripts result in more efficient interactions, allowing GR311 to handle more customer interactions in less time, thereby reducing costs.

RESULTS

Altogether, the CIS upgrade, partnership with GR311, business process improvements, and the Department managers' commitment to follow-through resulted in substantial changes and improvements to the Departments' customer service operations (Table 1). Pam Ritsema, managing director of the Departments, who retired in 2016 stated, "Given all the constraints of the organization, it's amazing we lived to talk about it, and had the success that we did . . . although I naively had no doubt we could do it and I could envision a future state and kind of how to get there."

Changes based on the assessment, partnership with GR311, and the Departments' continuous improvement strategy include the following:

- Leverage more from technology to perform work more efficiently, such as by developing effective work order management capabilities and deploying them to field staff.
- Restructure the workforce, including staff cross-training for greater flexibility, organizational structure changes, and creating and rewriting many job descriptions.
- Design and implement improved business processes

TABLE 1 Results of the City of Grand Rapids Water System and Environmental Services Departments partnership with GR311

	Before GR311	GR311 Today
Average speed of answer	3:45	:28
Average handle time	6:32	2:58
Average abandonments rate	22%	1.9%
Average handle time walk-in	No data	1:58

GR311—Grand Rapids 311

based on leading practices and the Departments' unique needs—besides customer service process improvements, the Departments also improved processes around work and asset management, operations and maintenance, and other core utility functions.

- Implement cross-departmental initiatives and share resources—for example, combining workforces for both water and sewer underground repair, water pumping stations, and sewage lift stations.
- Establish change management initiatives to build staff support and engagement, using education as the primary change management tool. The GR311 manager shared materials from past experiences to help the adoption and success of the new processes and technology. This resulted in greater acceptance by GR311 and Department staff based on the visuals and information that was in place.

Using these methods, the Departments have significantly reduced operating costs. In 2015, the Departments' annual operating costs were more than 10% lower than when the initiative began in 2009. For example, improvements in efficiency have allowed for a reduction in the number of customer service FTEs (full-time equivalents) by 21, for an estimated cost savings of approximately $800,000 per year.

Customer service, now delivered in collaboration with GR311, has a centralized system with expanded services and self-service opportunities, decreased costs, and improved response times. In 2015, the Departments and the GR311 Customer Service Center were honored with the CS Week Conference Expanding Excellence Award for Innovation in Customer Service. The CS Week Committee stated that Grand Rapids' efforts "far exceeded the ingenuity, success and commitment we envisioned when this award was created."

Water Service Manager Joellen Thompson commented, "A great municipality starts with the citizens; our commitment to deliver excellence to our customers is our goal, and the partnership with 311 pushes us to be better in service delivery every day. This award is confirmation that our partnership has resulted in a higher quality of service and more satisfied customers." Taking these successes to heart, the City of Grand Rapids is using lessons learned from the Departments' transformation to further improve the services they offer and to prepare themselves for future changes.

After the integrated processes were launched, the Departments collaborated with GR311 to observe each new process as it was executed for accuracy and efficiency.

OTHER OUTCOMES

Consolidate services for improved citizen access. Previously, 40% of calls made to the Water Department's customer service number were not related to water. Now, all water-related calls are made to GR311. From there, only 2.9% of actual water inquiries are routed to the Water Department's tier 3 customer service group, allowing the department to reduce its staff of call takers from 20 at the Water Department to 11 agents that handle all calls and walk-ins for the city through GR311.

The consolidation was mutually beneficial to the Departments and GR311. "The city was just standing up the 311 Customer Service Center, and Water was the first department brought on board," Thompson explained. "Why? Because water had a very high volume of relatively easy calls to script for and answer. That gave the 311 center a great training platform and a quick win in terms of rolling out their operation."

The customer experience has changed for the better, too. "Working with GR311 has improved our response time and ability to process customer requests and act on problems, complaints, and suggestions for improvement," Thompson said.

Leverage technology for enhanced service delivery. Field staff members now have the ability to resolve service orders in real time in the field compared with the previous manual processes that entailed printing hard-copy service orders, handwriting comments on paper documents, and returning documents to the office for further processing by back office staff. Leveraging the new system provided immediate information for GR311 to help customers while reducing the need for additional processing associated with paper orders.

Restructure workforce for flexibility and productivity. Optimizing the workforce structure included creating and rewriting many job descriptions to combine functions between the Departments and to reduce the amount of nonessential work. The documented task lists and associated training make work expectations clear and provide a strong platform for hiring and training staff. Offering additional educational opportunities and adding cross-training has helped staff members understand each other's roles, increasing workforce flexibility and improving morale. "Staff members have more tools, training, knowledge, and exposure to other areas," Thompson said. "Many have gotten more licenses and certifications, which are valuable to [them] as well as to the city." For example,

individuals in the newly created operator/maintainer position have dual responsibilities for both operating and light maintenance, enabling more employees to perform a wider range of tasks using fewer resources.

Redesign business processes for optimized performance. The Departments created scripts for each process for GR311 customer service representatives. Using this documentation, GR311 staff members can now answer most questions in less than three minutes.

CONCLUSION

As they adapt to a continually changing environment, the Departments are increasing efficiencies; expanding staff and customer access to information; and promoting collaboration between units, customers, and other government agencies. The Departments' transformation started in 2009 with the goals of reducing operating costs, becoming more competitive, and continuing to meet ever-increasing regulatory requirements, all without reducing service levels to customers. The departments have met these goals and more while laying a strong foundation for future improvements.

ABOUT THE AUTHORS

Joellen C. Thompson is the water system manager at the City of Grand Rapids, Grand Rapids, Mich. She oversees the entire operation, providing safe and reliable drinking water to approximately 300,000 customers in Kent and Ottawa Counties, and she is also responsible for customer service and field service operations for both water and sewer utilities. Grand Rapids is the second-largest provider of water and sewer services in Michigan, also serving 11 other communities outside the city in either a wholesale or retail capacity. Thompson is a licensed professional engineer, holds an S1 Water Operator license in Michigan, and has a BS degree in civil engineering from Michigan State University, East Lansing. She serves on the city's Utility Advisory Board, Grand Valley State University School of Engineering Advisory Board, and on several committees for the Michigan Section of AWWA. Becky Jo Glover is the director, customer experience, for the City of Grand Rapids. John Schiebold (to whom correspondence may be addressed) is the client services director at EMA Inc., 135 W. Central Blvd., Ste. 310, Orlando, FL 32801 USA; jschiebold@ema-inc.com.

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MEMORANDUM

TO: UTILITY ADVISORY BOARD

FROM: TIM BRADSHAW, PE – CITY ENGINEER

SUBJECT: WATER UTILITY SERVICE DISTRICT BOUNDARY CHANGE REQUEST

DATE: JULY 28, 2017

Grand Rapids rate study staff recently requested submittal of maps from Kentwood to encompass the water and sewer utility district boundaries. Subsequently, a comprehensive review at the single parcel level has been completed by Kentwood and reviewed by Grand Rapids Utility Management staff.

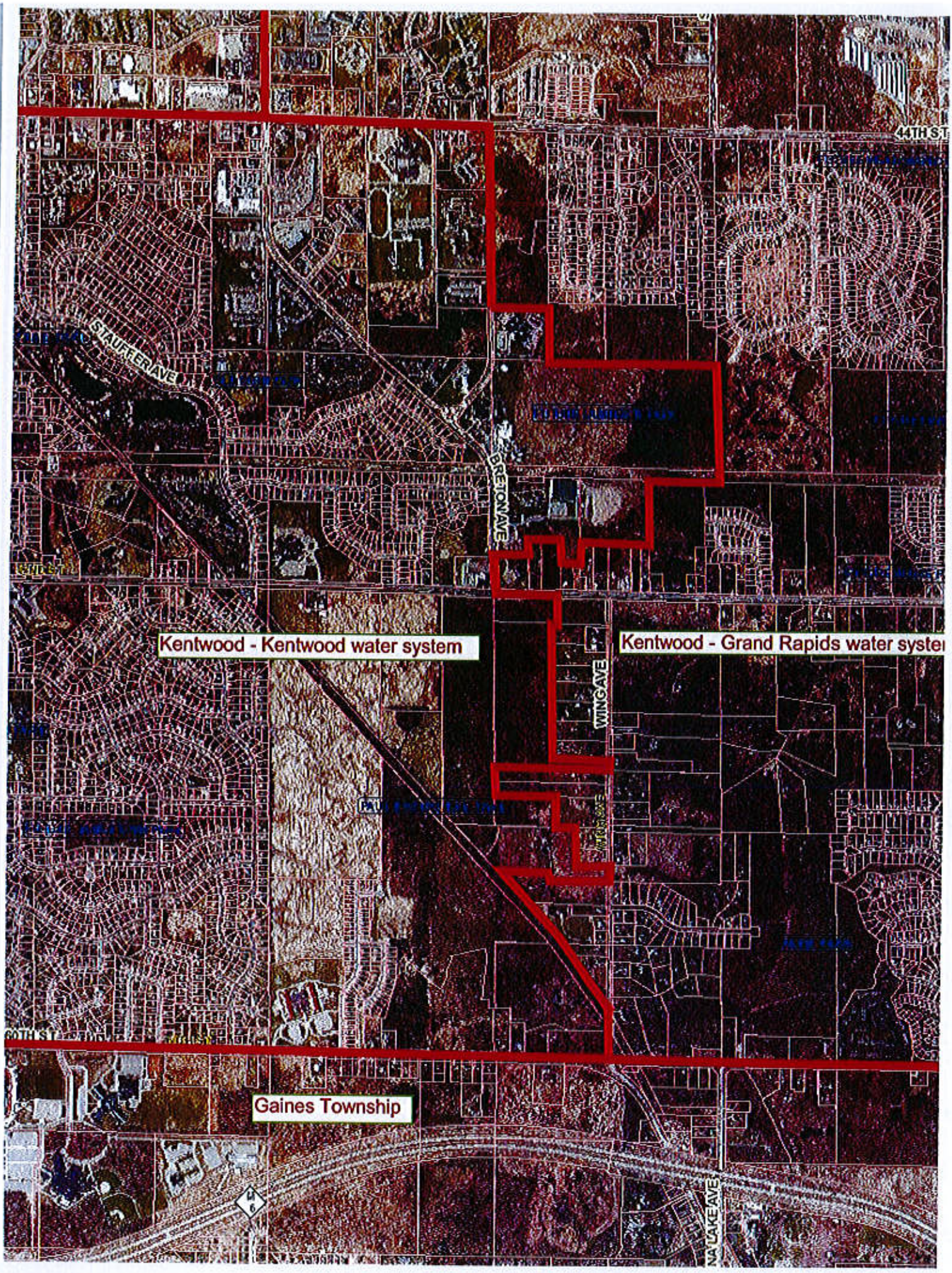
At the June 2017 UAB meeting, action was taken approving a 77 acre reduction in the Kentwood water USD in the vicinity of Wing Avenue which was completed at a macro level and splits many parcels in the USD. The attached map creates a USD that follows property lines rather than splitting some properties.

Further, the attached map includes removal of the Kentwood landfill property from the USD. The Kentwood water system serves the properties adjacent to the landfill including the Justice Center, City Hall, Library, and Public Works facilities. Additionally, Kentwood has 2 water towers immediately adjacent to the landfill with ample capacity to serve the area should it ever be ready for redevelopment. This 0.18 square mile area should have been removed from the USD many years ago, but is just being caught now due to the map request from Grand Rapids.

After more accurately delineating the entire City at the parcel level, and incorporating the changes described above, this will reduce the total Kentwood water USD from 13.88 square miles to **13.50** square miles. It appears there may have been errors in the Kentwood mapping dating back before 2000 which are being corrected now with accurate and readily available GIS technology.

Respectfully request approval to revise the Utility Service District to correct previous mapping errors.

4900 Breton Avenue SE, P.O. Box 8848, Kentwood, Michigan 49518-8848
Phone: 616.554.0739 Fax: 616.698.7118


44TH ST
STAUFFER AVE
BRETON AVE
Kentwood - Kentwood water system
Kentwood - Grand Rapids water syste
WING AVE
60TH ST
Gaines Township
6
LAKE AVE

CITY OF KENTWOOD
1967 - 2017
50th ANNIVERSARY
TOGETHER IN UNITY

Telephone Directory

Mayor	554-0770
Assessor	554-0723
Clerk	554-0730
Engineer	554-0740
Public Works	554-0817
Library	647-3910
Planning	554-0707
Recreation	656-5270
Treasurer	554-0754
District Court	554-0811
Fire Department	554-0800
Police	698-6580
Silent Observer	774-2345
Emergencies	9-1-1

STREET MAP

City of Kentwood
Kent County, Michigan

4900 Breton Ave. SE, P.O. Box 8848
Kentwood, MI 49518-8848
(616) 554-0610

City Website
www.ci.kentwood.mi.us

Water System
Service Area 13.50
square miles

MAP LEGEND

Railroads
Abandoned
Active
Railroad Type - Unknown
Shared Use Path
Access/Trails
Roads & Streets
Freeway
Freeway Ramp
Highway
Primary
Secondary
Proposed/Under Construction
Private
Cities & Townships
Major Buildings
Section Lines
Lakes & Ponds
Rivers & Streams
Parks, Cemeteries, Etc.

REGIS

Revised June 2017

Gerald R. Ford International Airport

Water/Sewer UAB Report
July 2017

Project Name	Contractor	Award Date	Substantial Completion Date	Final Completion Date	Water Fund Authorized NTE Amt	Sewer Fund Authorized NTE Amt	Est. Year for Rates	Integrated (Y/N)
Improvements to the BRISTOL AVENUE and ALGER STREET PUMP STATIONS	Franklin Holwerda Company	7/11/2017	4/6/2018	4/27/2018	$ 466,550.00	N/A	2019	N (GR) (WLK)
Water Main in Public Easement (SE) (Breton Village Mall Renovation)	N/A	7/11/2017	N/A	N/A	$ 94,476.00	N/A	2018	N (GR)
WATER RESOURCE RECOVERY FACILITY – Biodigestion with Combined Heat and Power	N/A	7/11/2017	N/A	N/A	N/A	$ 1,721,340.00	2018	Y
Reconstruction of Lafayette Avenue from Hastings Street to 500' South of Bradford Street	Diversco Construction Company, Inc.	7/25/2017	11/10/2017 or 7/10/2018	11/22/2017 or 7/22/2018	$940,000.00	$ 10,000.00	2018 or 2019	N (GR)
Rotomill/Resurfacing and Watermain Replacement in Fulton Street from Worcester Drive to Maryland Avenue	N/A	7/25/2017	N/A	N/A	$ 499,437.00	N/A	2018	N (GR)